



King County

Dow Constantine

King County Executive

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March 9, 2010

Douglas J. Wade
U.S. Army Corps of Engineers
441 G Street, NW
Washington, DC 20314-1000

RE: Docket Number COE-2010-0007

Dear Mr. Wade:

King County, Washington has a long history of partnering with the United States Army Corps of Engineers (Corps) on flood risk reduction actions and projects, dating back to the early 20th century. We greatly appreciate and value the continued support of the Corps in our efforts to reduce the risk of flooding on the major river systems throughout King County.

More recently, we have been working cooperatively with the Corps to address increased flood risks as a result of damages to the right abutment of the Corps' Howard Hanson Dam on the Green River. Our close partnership with the Corps has also included significant rehabilitation efforts to the levees along the lower Green River valley, as well as along other levee systems in the County, and we look forward to continuing this partnership as we work to restore our aging flood protection infrastructure. We fully endorse the Corps' continued work to expedite the design and construction of permanent repairs at Howard Hanson Dam to ensure flood risks to downstream properties are minimized to the fullest extent possible.

With our ongoing partnership in mind, we would like to express our concerns with the Corps' proposal to change the vegetation variance process, detailed in the Federal Register notice¹ titled "Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls."

A critical element in the partnership between King County and the Corps is the management of levee vegetation in a way that balances federal mandates related to funding for levee repairs, recovery of salmonid species listed as "threatened" under the ESA, and requirements under the Clean Water Act. Because of these conflicts, and until such time they are resolved, we

¹ Docket Number COE-2010-0007 in Listing in Vol. 75, No. 26 / Tuesday, February 9, 2010 / Notices

Mr. Douglas J. Wade

March 9, 2010

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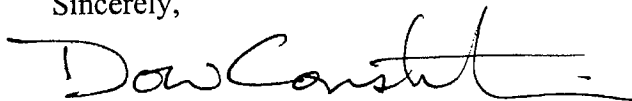
respectfully request the following to be considered as part of the proposed change to the levee vegetation variance process:

1. Withdraw the current variance proposal and base any future levee vegetation policy changes on the best available science, drawing upon regionally-developed technical studies and scientific research conducted in partnership with local jurisdictions and other affected federal and state agencies; and
2. Consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service under Section 7 of the ESA regarding the impact of the Corps' levee vegetation requirements on listed species; and
3. Should the variance policy proceed as proposed, allow the Corps' Seattle District regional variance to remain in place, and extend the deadline for existing variances by a minimum of two years due to the extensive, costly and time-consuming documentation required to adhere to the new process of obtaining a variance.

We would like to reiterate our appreciation for our continued partnership between the Corps and King County, which we deem exceptionally important and vital, in reducing flood risk throughout the county.

Our detailed response to the Federal Register notice follows as an enclosure. Thank you for your consideration of our comments and our continued partnership together. If you would like to discuss this matter further, please do not hesitate to contact Mark Isaacson, Division Director of the Water and Land Resources Division in the Department of Natural Resource and Parks, 206-296-6587.

Sincerely,



Dow Constantine
King County Executive

Enclosures

cc: Honorable Patty Murray, United States Senator
Honorable Maria Cantwell, United States Senator
Honorable Jim McDermott, United States Congressman
Honorable Adam Smith, United States Congressman
Honorable Jay Inslee, United States Congressman
Honorable Rick Larson, United States Congressman
Honorable Dave Reichert, United States Congressman
BG William Rapp, Commander and Division Engineer, US Army Corps of Engineers,
Northwestern Division

Col. Anthony Wright, Commander and District Engineer, US Army Corps of Engineers,
Seattle District
Edward Hecker, Contingency Operations, Northwestern Division Regional Integration
Team, Headquarters, US Army Corps of Engineers
Peter Rabbon, Director, National Flood Risk Management Program, Institute for Water
Resources, US Army Corps of Engineers
Witt Anderson, Director, Programs Directorate, US Army Corps of Engineers,
Northwestern Division
Doug Weber, Levee Safety Program Manager, US Army Corps of Engineers, Seattle
District
Barry Thom, Acting Regional Administrator, Northwest Region, NOAA Fisheries
Steven Landino, Director, Washington State Habitat Office, Habitat Conservation
Division, National Marine Fisheries Service
Kenneth Berg, Manager, Western Washington Field Office, US Fish and Wildlife
Tom Eaton, Director, Washington Operations Office, US Environmental Protection
Agency
Brian Cladoosby, Chairman, Swinomish Indian Tribal Community
Josh Baldi, Special Assistant to the Director, Washington Department of Ecology
Bridget Moran, Environmental Policy Lead, Washington State Department of Fish and
Wildlife
Bob Burns, Interim Director, King County Department of Natural Resources and Parks
(DNRP)
Mark Isaacson, Division Director, Water and Land Resources Division, DNRP
Kjris Lund, Executive Director, King County Flood Control District

Attachment – Federal Register Comments – Docket Number COE-2010-0007

The purpose of this attachment is to document King County's responses to specific elements of the Federal Register notice for docket number COE-2010-0007.

Supplementary Information

The Corps issued a draft Finding of No Significant Impact (FONSI) in accordance with the National Environmental Policy Act requirement for assessing the environmental impact of proposals. The FONSI was issued on the basis that "changing the process for applying for a variance does not itself affect the environment."

While the proposed change purports to be only a procedural change, the changes will significantly affect existing environmental conditions. Under the proposal, all existing variances, some of which have been in place for many years, would be terminated and replaced with a future vegetation variance process that will be time consuming and expensive. Because of these effects, the proposed change would affect the environment in a way that would likely cause degradation to existing riparian conditions and preclude future improvement of riparian habitat necessary for recovery of salmonids listed as threatened under ESA.

The National Marine Fisheries Service's Biological Opinion to the Federal Emergency Management Agency, issued in September 2008, describes the serious adverse affects to ESA-listed salmonids in Puget Sound resulting from the removal of levee vegetation.¹ Similarly, the National Marine Fisheries Service's 2003 review of the Corps' Programmatic Biological Assessments of the Flood Control Projects Maintenance Inspection Program concluded that removal of riparian vegetation is an action that is "likely to adversely affect" listed fish species. A copy of the letter to the Corps documenting the National Marine Fisheries Service's findings is attached for your review. Removing existing riparian vegetation and precluding the growth of additional riparian vegetation would also exacerbate existing water temperature problems for rivers listed as impaired under Section 303(d) of the Clean Water Act.

We believe that the Corps should reinitiate consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service and the U.S. Fish and Wildlife Service regarding the impact of the Corps' levee vegetation requirements on species listed under the ESA. The Corps initiated consultation with the National Marine Fisheries Service in 2003; however, the consultation process was subsequently halted by the Corps. Consultation is appropriate since the vegetation policy itself is a federal action, per 50 CFR 402.02, and subject to ESA Section 7 consultation requirements.

Section 5.

The definition of levee systems is overly broad and would extend the need to apply for individual project variance requests to various river embankments and flood conveyance channels that may not be levees. We request that this section be clarified to apply only to those systems that are enrolled in a current Corps program, consistent with Section 9.b. of this notice.

¹ A copy of the Biological Opinion can be found on the National Marine Fisheries Service website at https://pcts.nmfs.noaa.gov/pls/pcts-pub/sxn7.pcts_upload.download?p_file=F3181/200600472_fema_nfip_09-22-2008.pdf

Section 6.a.(2).

The proposed policy presents no objective standard for evaluating when a proposed variance conflicts with safety, structural stability, and accessibility objectives. Until an objective threshold is defined, we request that the Corps continue to partner on regionally-specific research to define the conditions in which levee vegetation increases or decreases the safety, structural integrity, and functionality of levees.

In recognition of the significant concerns surrounding levee vegetation management in the Puget Sound region, the Corps sponsored a levee vegetation symposium (“An Examination of Levee Vegetation Policy”) on February 26, 2009, in Renton, Washington. At this symposium, the Corps leadership in attendance committed to base any policy changes to the existing regional variance on valid scientific research, and until such time as this research is complete, the Corps stated that the Seattle District regional variance would remain in effect (see enclosed symposium summary document). We view the commitments to be of critical importance in determining the most sensible and scientifically-valid levee vegetation management policy for our region.

The national levee vegetation maintenance standards were developed decades ago and based primarily on the needs of river systems in regions outside of Puget Sound. A scientifically-developed, locally-driven variance process, in which jurisdictions collaborate with the Corps is essential to reaching a result that effectively addresses the unique circumstances of our area. It is our view that the national levee vegetation standard is not appropriate for the Pacific Northwest given the unique needs and conditions of our rivers. As such, we request that the Corps’ Seattle District regional variance from the national levee vegetation maintenance standards since 1995 continues to remain in place.

Section 6.

This section outlines the variance request and approval process, but it offers no option for an appeal of variance decisions in the event requests are denied. Because the variance process affects the mandates of multiple federal agencies, an appeal process should be included in the proposal that draws upon input from the agencies impacted by the Corps’ decisions regarding vegetation variances.

Section 6.f.

This section indicates that “The district shall notify the appropriate regional offices of the federal resource agencies when a vegetation variance request has been received.” However, the proposal does not define resource agency or indicate which agencies will be notified, nor does it describe the role these resource agencies may have with respect to commenting on the variance requests or the Corps’ decision to approve or deny the request. The role of the federal resource agencies charged with protecting resources affected by the variance process needs to be clearly defined.

Section 7.c.(4).

Suggesting that structural measures (such as armoring or overbuilt sections) are needed to preserve system reliability and resiliency and to mitigate vegetation impacts does not recognize that vegetation can actually enhance levee performance and resilience over time.

It has been the experience of King County that native vegetation on levees can provide structural reinforcement—and thus helping to ensure the protection of public safety—due to the binding effect of root systems, as well as reduce fluvial erosion of the levee system by lowering flow

velocities and boundary shear at the levee face. While we agree that some types of vegetation (i.e. non-native species or species with shallow root systems) are not appropriate for levees, our experience is that native vegetation can enhance levee stability and allow for routine inspections and the identification of damages or other structural issues associated with levees.

Section 7.e.

Requiring an engineering analysis on a levee system scale as a precondition for a vegetation variance will be excessively costly and time consuming for nearly all jurisdictions attempting to obtain a variance. For example, the lower Green River levee system in King County is comprised of some 42 levees that extend for 19 miles, making any attempt to conduct an engineering analysis of the system extraordinarily difficult due to staff and resource constraints.

Section 9.b.

The statement that the variance process would not apply to “channels...or riverbank protection systems such as revetments” is at odds with the definition of levee systems provided in Section 5, which includes “embankment sections...and flood damage reduction channels.” Moreover, the exclusion of the listed features in Section 9 from the variance process leaves it completely unclear as to whether vegetation is allowed on these features.

Section 9.e.

Section 9 concludes that vegetation poses a threat to levee system reliability; however, as noted by the Corps at the February 25, 2010, California Levees Roundtable meeting, documented science on the impacts of vegetation on levee systems is limited worldwide. In addition, the claim that vegetation poses a threat to observations of the levee during high water conditions is contradicted by the fact that any vegetation which can be observed above the surface of the floodwater can help to determine whether the levee is performing to its design standards during flood conditions.

The vegetation-free area defined in this section does not offer significant opportunities to enhance structural stability with vegetation, nor does it allow for substantial enhancement of riparian habitat for threatened fish species. As a result, this provision of the proposal makes the benefits of vegetation on levees that we identify practically impossible to obtain.

Furthermore, in many areas the only vegetation currently present on leveed river reaches is on the landward side of the levee within the 15-foot vegetation-free zone identified in this section. The prohibition on vegetation in the 15-foot area landward of the levee backslope toe, especially when there are no structural concerns for levee integrity, will result in the removal of most of the remaining vegetation, resulting in a significant, and potentially irreversible, impact to natural resources.

Section 10.

The statement is made that “[a]ll existing vegetation variances...that are not submitted for an Agency Technical Review (ATR) via the process described herein, by 30 September 2010, may no longer be considered valid.” We urge the Corps to extend the deadline for existing variances for a minimum of two years on the basis that the documentation required to adhere with the new process is extraordinarily extensive, costly, and time-consuming for a jurisdiction such as King County, which is the local sponsor of 121 levees countywide that extend for approximately 43.8 river miles. Requiring jurisdictions with existing variances to submit all proposed documentation within this tight time frame places natural resources at risk of irreversible impacts.

Section 11.

Suggesting that the local sponsor is responsible for all Endangered Species Act compliance, including Section 7 consultation, implies that implementation of levee vegetation management—whether through a variance or through application of the national standard—has an effect on aquatic habitat and also implies that a federal action is present. We believe the national vegetation standard is itself a federal action—as defined by 50 CFR 402.02—that affects listed critical habitat. As a result, we encourage the Corps to consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service on the vegetation management policy to ensure that no negative impacts to endangered and threatened fish species or their critical habitat result through the implementation of the national vegetation standard. This consultation should include an analysis of the impacts of the national vegetation standard on Essential Fish Habitat, as regulated by the *Magnuson-Stevens Fishery Conservation and Management Act*.

FILE COPY

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
WASHINGTON HABITAT BRANCH OFFICE
810 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

NMFS Tracking No.:
2003/00888

October 16, 2003

Mark Ziminske, Chief
Environmental Resources Section
Department of the Army
Seattle District, Corps of Engineers
P.O. Box 3755
Seattle, Washington 98124-3755

Re: Section 7 Consultation Request for U.S. Army Corps of Engineers, Seattle District,
Flood Control Projects Maintenance Inspection Program for Washington State.

Dear Mr. Ziminske:

This letter responds to your request for concurrence with the U.S. Army Corps of Engineers' (COE) determinations that the actions described in the May, 2003, Programmatic Biological Assessments (PBAs) of the Flood Control Projects Maintenance Inspection Program for Washington State "may affect" but are "not likely to adversely affect (NLAA)" several fish species listed for protection under the Endangered Species Act (ESA). You had requested separate ESA section 7 informal consultation for two documents describing the effects of maintaining flood control works in two documents, one for Eastern and one for Western Washington. The PBAs describe the effects of ongoing levee operation and maintenance activities that include clearing drainage structures (e.g. culverts, flapgates, and tidegates), removing silt, mowing vegetation, repairing flood walls, replacing lost bank armoring, and undertaking miscellaneous activities necessary to ensure proper functioning of the flood control works. The COE's NLAA determinations pertain to Flood Canal chum salmon (*Oncorhynchus keta*), Puget Sound Chinook (*O. tshawytscha*), Middle Columbia River steelhead trout (*O. mykiss*), and Upper Columbia River steelhead trout (*O. mykiss*).

NOAA's National Marine Fisheries Service (NOAA Fisheries) has reviewed the referenced PBAs, and does not concur with the COE's effects determinations. The proposed action includes a host of activities that NOAA Fisheries believes are likely to adversely affect listed fish, including: periodically removing riparian vegetation from levees; removing large woody debris from stream channels; replacing bank armoring; and maintaining fish passage barriers (e.g., flapgates and tidegates).



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Properly functioning condition is the sustained presence in a watershed, of natural habitat-forming processes (e.g., riparian community succession, bedload transport, precipitation runoff pattern, channel migration) that are necessary for the long-term survival of the species through the full range of environmental variation. Properly functioning condition, then, constitutes the habitat component of a species' biological requirements. The COE's own analysis using the Matrix of Pathways and Indicators concluded that virtually all baseline aquatic habitat indicators at the site of each proposed activity are functioning "at risk" or "not properly functioning," and, furthermore, concluded that the proposed actions would maintain those poor environmental baseline conditions.

As you may be aware, a "not likely to adversely affect" determination is appropriate only when the effects of an action are expected to be insignificant, discountable, or entirely beneficial. The proposal to maintain the conditions which are inadequate to support the biological needs of listed species fails to meet the standard for an NLAA call. Moreover, NOAA Fisheries remains concerned, particularly in Evolutionarily Significant Units (ESUs) where listed fish stocks are listed as endangered (i.e., Upper Columbia River steelhead), that the proposed activities would not only prevent future attainment of properly functioning conditions, but would also significantly further degrade the aquatic habitat indicators that are essential for fish survival and recovery of listed salmonid fish stocks.

Section 7(a)(2) of the ESA requires that each Federal agency shall insure that any action authorized, funded, or carried out by such action agency is not likely to jeopardize the continued existence of any endangered or threatened species (or result in the destruction of adverse modification of critical habitat, where designated). Section 7(a)(1) requires federal agencies to utilize their authorities to further the purposes of the ESA by carrying out programs for the conservation of listed species. It is in the context of both of these requirements, that the ESA emergency consultation letters from NOAA Fisheries to the COE for dike and levee maintenance dated February 17, 2000 and September 3, 2002, and a November 14, 2002 interagency meeting to discuss dike and levee emergency consultations. At the Nov. 14, meeting, NOAA Fisheries suggested that the COE consider requesting consultation for dike and levee maintenance at the watershed scale, to include levees maintained by the COE, as well as those managed to COE standards by local jurisdictions. In addition to reducing the number of consultations, such an approach would facilitate identifying opportunities to minimize the adverse effects to listed species from dike and levee systems, in a manner that preserves the primary function of the flood control network, safeguarding life and property within the watersheds. Col. Graves offered support for this conceptual approach at the November, 14th meeting. In our view, now is the time to try and implement it.

To further these goals, we're requesting a meeting with your technical staff to discuss the PBAs and investigate the watershed approach, or other opportunities that may be available for the COE to meet its levee operations and maintenance responsibilities and promote the restoration of riparian and instream habitat components essential for the survival and recovery of listed anadromous fish stocks. The watershed concept could be tested by initiating a pilot or pilots in

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one or two of the watersheds listed in the PBAs. It would be productive for our technical staff to meet to discuss how the scope of the subject proposed actions could be reconfigured to that end. However, if the COE would prefer to proceed with consultation on the PBAs as originally submitted, NOAA Fisheries is prepared to do so. While it is not clear why the COE has chosen to consult on the maintenance such a small subset of the dike and levee network under its jurisdiction, NOAA Fisheries acknowledges the COE's discretion to determine the scope of actions it submits for consultation.

Thank you in advance for your consideration of this proposal. We look forward to a productive consultation on dike and levee maintenance, and to working with you in the development of some type of programmatic consultation for federal and non-federal sponsored levee operations and maintenance statewide. Should you or your staff have any questions, please contact Mr. Dennis Carlson at (360) 753-5828 or Mr. Neil Rickard at (360) 753-9090.

Sincerely,



Steven W. Landino
Washington State Director

AUG. 2, 2006 9:30AM

NMFS HABITAT/NPS

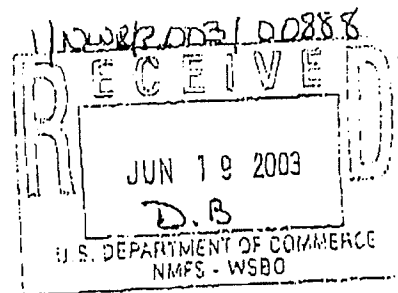
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P. 5/84/07



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755



Environmental Resources Section

Mr. Steve Landino, Washington Branch Chief
Habitat Conservation Division
National Marine Fisheries Service
510 Desmond Drive Southeast, Suite 103
Lacey, Washington 98503

2003 / 00888

RE: Informal Section 7 Consultation Request for U.S. Army Corps of Engineers, Seattle District, Flood Control Projects Maintenance Inspection Program for Washington State

Dear Mr. Landino:

We have completed our Programmatic Biological Assessment (PBA) for the U.S. Army Corps of Engineers Flood Control Projects Maintenance Inspection Program. The PBA is separated into two documents, one for Eastern Washington and one for Western Washington. The PBA addresses the effects of the identified maintenance activities on Hood Canal chum salmon (*Oncorhynchus keta*), Puget Sound chinook (*Oncorhynchus tshawytscha*), Middle Columbia River steelhead trout (*Oncorhynchus mykiss*), Upper Columbia River steelhead trout (*Oncorhynchus mykiss*), humpback whale (*Megaptera novaengliae*), leatherback sea turtle (*Dermochelys coriacea*), and Steller sea lion (*Eumetopias jubatus*). The PBA also addresses eight other species under the jurisdiction of the U.S. Fish and Wildlife Service and is being sent to them under separate cover for informal Section 7 consultation.

The PBA determined that the proposed maintenance activities are not likely to adversely affect Middle Columbia River steelhead trout, Upper Columbia River steelhead trout, Hood Canal chum salmon, and Puget Sound chinook. We determined "no effect" on humpback whale, leatherback sea turtle, and Steller sea lion. We ask your concurrence with this determination for these species. We have enclosed the PBA for your review and concurrence.

The point of contact for the Flood Control Projects Maintenance Inspection Program PBA is Ken Brunner. Mr. Brunner can be reached at (206) 764-3479 and email kenneth.r.brunner@usace.army.mil.

Sincerely,

Mark Ziminske, Chief
Environmental Resources Section

Enclosure

1 Introduction

The purpose of the U.S. Army Corps of Engineers (Corps) Inspection of Completed Works (ICW) program is to assure that authorized flood control works (FCW) constructed by the federal government are maintained in a fully functional condition according to an approved Operations & Maintenance (O&M) Manual. The Project Cooperation Agreement (PCA) is the legal mechanism by which a local sponsor agrees to maintain the project as per the O&M Manual. Maintenance activities include clearing drainage structures, removing silt, mowing vegetation, repairing flood walls, replacing lost bank armoring, and undertaking miscellaneous activities necessary to ensure proper functioning of the FCW.

The ICW program allows the Corps to assess the local sponsor's performance and the functionality of the FCW. If the FCW is not maintained by the local jurisdiction, the Corps can revoke the eligibility of the local sponsor and the Corps may perform the maintenance or de-authorize the FCW. However, such action has never been necessary for the authorized FCW discussed in this assessment.

This Biological Assessment (BA) addresses the potential effects of the federal ICW program on listed species as required by the Endangered Species Act (ESA) of 1973, as amended. The ICW program regulates maintenance of 12 authorized FCW in Washington State west of the Pacific Crest. All of the FCW are currently operational and being maintained in accordance with the applicable regulations (Section 2.4). Ten species listed under the ESA are potentially affected by maintenance of one or more of the approved FCW.

The maintenance of the federally constructed FCW by a local sponsor will not result in additional impacts to the environmental baseline for the authorized FCW discussed in this BA. The goal of the ICW program is to maintain the FCW in an as-built condition. The ICW program does not allow changes in the operation and maintenance of FCW without a separate project-specific Section 7 consultation. All of the sites have been in use for several years, with the Long Road FCW as the only FCW completed in the last 5 years. The current maintenance practices only maintain the effects of these structures. The removal of debris and vegetation does not exacerbate the impacts of the physical structure. The proposed maintenance activities inspected under this program do not contribute to degradation of the environmental baseline at any of the authorized FCW.

Therefore, the ICW program results in either "no effect" or "may affect, but not likely to adversely affect" determinations for listed species that occur within the action area of the authorized FCW discussed in this assessment (Table 1-1).

**Table 1-1. Summary of Determinations on Listed Species
Potentially Found within the Action Area of Affected Flood Control Works**

	Omak	Orville	Yakima
NOAA Fisheries			
Middle Columbia River steelhead trout			NLAA
Upper Columbia River steelhead trout	NLAA	NLAA	
USFWS			
Bald eagle	NLAA	NLAA	NLAA
Columbia River bull trout			NLAA
Gray wolf	NE	NE	
Ute ladies'-tresses	NE	NE	NE
NE - No effect			
NLAA - Not likely to adversely affect			
Blank spaces denote species not identified by WDFW, USFWS, or NOAA Fisheries as potentially found at the FCW or within the action area.			

**Table 1-1. Summary of Determinations on Listed Species
Potentially Found within the Action Area of Affected Flood Control Works***

	Aberdeen	American Lake	Dungeness	Elwha	Horseshoe	La Conner	Lung Road	Lummi	Sammamish	Shelton	Startup	Tukwila
NOAA Fisheries												
Hood Canal chin salmon			NLAA									
Humpback whale	NE		NE	NE		NE		NE				
Leatherback sea turtle	NE		NE	NE		NE		NE				
Puget Sound chinook		NE	NLAA	NLAA	NLAA	NLAA		NLAA	NLAA	NE	NLAA	NLAA
Steller sea lion	NE		NE	NE		NE		NE				
USFWS												
Bald eagles	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA
Brown pelican								NE				
Puget Sound/ Coastal bull trout	NLAA	NE	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NE	NLAA	NLAA
Marbled murrelet	NLAA		NLAA	NLAA		NLAA		NLAA			NLAA	
Northern spotted owl				NLAA							NLAA	
NE - No effect NLAA - Not likely to adversely affect * - Blank spaces denote species not present at the FCW or within the action area												

Levee Vegetation Symposium 2009

On Feb. 26, Seattle District sponsored a symposium, led by Northwestern Division Commander Brig. Gen. Rapp, to discuss current and future policies regarding levee maintenance standards and vegetation.

The Corps invited agencies, local communities, diking districts, Tribes, non-governmental organizations and others to discuss the impacts of levee vegetation maintenance. More than 200 participants attended, drawn by a topic that has sparked debate and concern in the west coast districts. The symposium provided an opportunity for all concerned parties to hear the range of viewpoints that exist regarding levee vegetation policies.

"We are here to better understand the challenges each of our agencies face – to try to get a clearer sense of the bigger picture – and to move toward decisions that will make sense to those who will assume our responsibilities in the future," said Pete Rabbon, with Headquarters USACE. "We are all searching for solutions to a very complex set of interrelated challenges – hoping to find a way to balance sometimes conflicting priorities in how we live at the edge of this dynamic thing."

The Corps of Engineers includes about 2,000 levees in its Public Law 84-99 program. Seattle District is one of 40 districts in the Corps of Engineers yet has about 15 percent of those levees within its boundaries. Most of the levees within the Seattle District boundaries are locally owned and maintained – nearly 300 levees are in the PL-84-99 program.

The national maintenance standards are in the Corps' Engineering Regulation 500-1-1, and Seattle District has had a variance from that standard in place since February 1995. That variance is intended to consider environmental considerations to the maximum extent feasible while assuring that levees provide the level of risk reduction for which they were designed.

According to Rabbon's presentation, the Corps' vegetation standards are meant to address two reliability concerns: obstruction, and direct impacts. The intent of vegetation standards is to assure unrestricted access for maintenance, inspection, flood fighting and associated monitoring; concerns about direct impacts are primarily root-related and include piping, seepage, embankment destabilization, and critical loss of embankment due to tree overturning during flood events.

The symposium featured keynote speaker King County Executive Ron Sims.

"King County believes that native vegetation along streams and rivers is necessary to restore the habitat that listed

species need for recovery. Two decades of experience in incorporating trees and other native vegetation into flood facility repair projects have shown that when properly designed and constructed, vegetation can actually improve the structural stability of levees," said Sims.

"Like the Corps, King County is very concerned with the structural stability of our flood facilities, but our research and experience has shown us that these concerns over vegetation are not substantiated, and that our facilities face far more significant structural problems than the mere presence or absence of trees," Sims said.

Levee vegetation is of particular concern in west coast districts because many ongoing recovery plans for listed salmon species, such as that for the threatened Puget Sound Chinook Salmon, encourage vegetated, natural river banks. NOAA Fisheries, the agency leading the plan to recover this fish, participated in the symposium and proposed a five-year pilot project with interested local jurisdictions, to manage levee vegetation for fish and public safety.

Seattle District met in mid March with NOAA Fisheries to propose a roadmap for implementation of that Service's pilot project proposal, which would involve a cooperative effort between our two agencies, in partnership with interested stakeholders such as King County, to further assess performance of vegetated levees under Pacific Northwest conditions.

Research is now underway at the Engineering Research and Development Center into the effects of vegetation on levees. At the symposium, the Corps stated that the Seattle District variance would remain in place until after that study is concluded.

"We're committed to following the science. We will modify our policy based on what comes out of that research," Brig. Gen. Rapp said.



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